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NOTES ON GEOGRAPHIC DISTRIBUTION

Mammalia, Chiroptera, Phyllostomidae, *Vampyrum spectrum* (Linnaeus, 1758): First record for the Cerrado biome in the state of Mato Grosso, west central Brazil

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ABSTRACT: In Brazil, *Vampyrum spectrum* has been recorded in the Amazon forest, Caatinga, Pantanal, and in the Cerrado of Tocantins. The only previously known record for the Mato Grosso state is more than 50 years old, in a Pantanal area. This paper provides the first record of the species in a Cerrado area of this state, in the municipality of Nova Xavantina, west central Brazil.

Vampyrum spectrum is the largest species of bat found in the New World, with some individuals reaching body weights of up to 235 g and wingspans of up to 110 cm (Navarro and Wilson 1982; Nowak 1994). The species has a robust, long and narrow muzzle, and a well-developed nose leaf containing a cup-shaped fold (Navarro and Wilson 1982; Peracchi *et al.* 2010). The dorsal pelage of *V. spectrum* varies from dark brown to medium-brown and the ventral pelage is light-brown. This species is predominantly carnivorous, and preys include small vertebrates such as frogs, lizards, birds and even other bats (Gardner 1977; Nogueira *et al*. 2007).

The conservation status of *Vampyrum spectrum* has been currently classified as data deficient in Brazil due to the scarcity of data available for the species (Chiarello *et al*. 2008). *Vampyrum spectrum* is a monogamous species, forming small groups, and occurring in low densities (Navarro and Wilson 1982). These traits categorize *V. spectrum* as a locally scarce species with a general distribution, according to the criteria of Arita (1993).

Vampyrum spectrum is distributed over Mexico, North Guatemala, Guianas, Ecuador, Peru, North Bolivia and Brazil (Navarro and Wilson 1982; Koopman 1993; Emmons and Feer 1997; Reid 1997; Eisenberg and Redford 1999; Simmons 2005; Gardner 2007). In Brazil, there are records of *V. spectrum* in the states of Acre (Peracchi *et al*. 2010), Amazonas (Moratelli *et al.* 2010), Amapá (Peracchi *et al.* 1984), Piauí (Gregorin *et al*. 2008), Rondônia (Discher *et al*. 2009), Roraima (Taddei and Reis 1980), Tocantins (Nunes *et al*. 2005), Pará (Bernard 2001), Mato Grosso do Sul (Silveira *et al.* 2011) and Mato Grosso (Vieira 1955) (Figure 1); in the latter, the record occurred more than 50 years ago, in the Barra do Aricá region, characterized as Pantanal. The species distribution was therefore restricted to Amazonia, Caatinga and Pantanal (Peracchi *et al*. 2010). However, although most records in Brazil occurred in those areas, there is a record of the species in the Cerrado of the state of Tocantins (M. Guimarães pers. comm.), and a record in a transitional area between Cerrado and Caatinga (Gregorin *et al.* 2008). This is the first record of *V. spectrum* in the Cerrado biome of the state of Mato Grosso (Figure 1), and the second record for that state.

An adult male specimen (Figure 2) was netted on 11 July 2010, at Nova Xavantina, in the eastern region of Mato Grosso (14°38'19" S, 52°21'39" W), around 22:30 h, during an inventory of bat species in different forest fragments of the location, under IBAMA (Brazilian Institute of

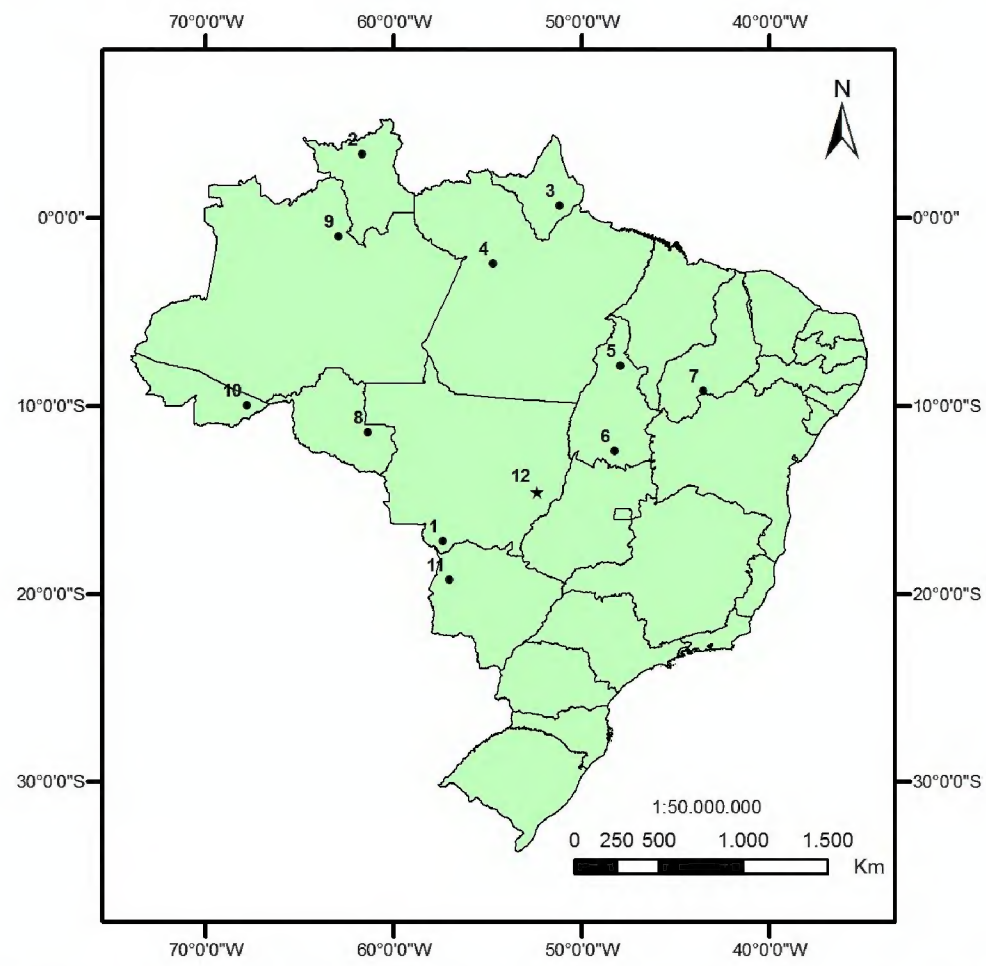

FIGURE 1. Geographical distribution of *Vampyrum spectrum* in Brazil. 1. Vieira 1955 (17°12'34" S, 57°22'26" W); 2. Taddei and Reis 1980 (3°24'59" N, 61°39'59" W); 3. Peracchi *et al*. 1984 (00°40' N, 51°10' W); 4. Bernard 2001 (2°24'52" S, 54°42'36" W); 5. Nunes *et al*. 2005 (07°52' S, 47°56' W) 6. Guimarães (personal communication) (12°23'51.4" S, 48°14'05.67" W); 7. Gregorin *et al*. 2008 (09°13'12" S, 43° 29'52" W); 8. Discher *et al*. 2009 (11°24'64" S, 61°22'55" W); 9. Moratelli *et al*. 2010 (00°58'31" N, 62°55'28" W); 10. Peracchi *et al*. 2010 (09°58'26" S, 67°48'27" W); 11. Silveira *et al*. 2011 (19°14'59.6" S, 57°01'45.6" W); 12. The new record (star) in the Cerrado biome, state of Mato Grosso (14°38'19" S, 52°21'39" W).

Environment and Renewable Natural Resources) permit No. 18276-1. The animal was preserved in alcohol and is deposited in the Chiroptera collection of the Universidade do Estado de Mato Grosso – UNEMAT, *Campus* of Nova Xavantina (collection number RM 123).

The specimen has dark grayish pelage, forearm 110.53 mm, wingspan 80 cm, body weight 175.2 g, first phalanx 73.71 mm, second phalanx 42.68 mm, third phalanx 48.15 mm, thumb 23.22 mm, braincase 13.13 mm, muzzle 25.14 mm, ear 36.26 mm, tragus 10.14 mm, nose leaf 15.03 mm, dental formula: i 2/2, c 1/1, pm 2/3 and m 3/3, totaling 34 teeth, femur 43.13 mm, tibia 55.59 mm, foot 28.65 mm, calcaneus 38.15 mm. The measurements are consistent with those reported by Navarro and Wilson (1982) for Mexico, Island of Trinidad, Central Brazil and Peru, and by Acosta and Azurduy (2006) for Peru.

The environment where the capture occurred is a transition area between gallery forest and cerradão (Ribeiro and Walter 2008). The net with which the capture was made was set at the end of a narrow corridor in the vegetation presenting dense canopy and trees about eight meters high. Other studies have also recorded *V. spectrum* in vegetations characterized as forests, shaded plantations and corridors between forests (Estrada and Coates-Estrada 2001).

At the moment of the capture, the bat was flying at approximately 1.5 m above the ground and was apparently attracted to the mist net by the distress calls of two specimens of *Artibeus lituratus* that had been captured in the net, as it was entangled close to one of the *A. lituratus* individuals.

The presence of *V. spectrum* have been contributing to the development of management plans and the establishment of permanent preservation areas, which in the long run may help conserve this species (Vargas-Espinoza *et al.* 2004).

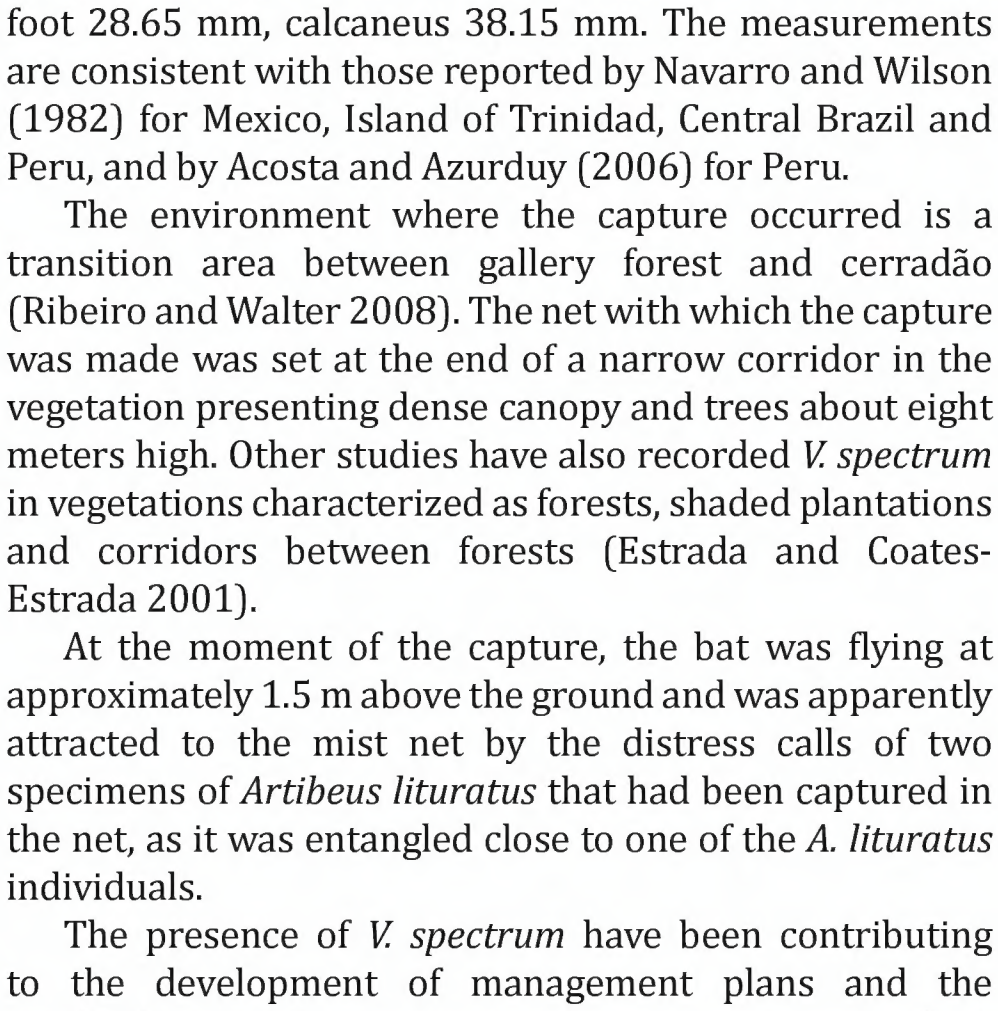

Figure 2. *Vampyrum spectrum* individual (RM 123), captured in Nova Xavantina, state of Mato Grosso, Brazil (Photo by Sousa, R.F.).

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